PDR RID Report

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Review FOS
Originator Ref WDB-1FOSPDR
Priority 2

Section CM **Page** 16 **Figure Table** CM-16 FOS Driving

Category Name Requirements **Actionee** HAIS
Sub Category
Subject Data Volumes

Description of Problem or Suggestion:

EOS AM1 Data Volume for FOS Processing was not disclosed. In reviewing the FOS Analyses (Section 9 of the FOS SDS), it appears that the correct telemetry rates to ISTs were not used (page 9-19). On page 9-3, Note 2, a reference is made to requirement F-FOS-235, but in the Level 4 Traceability Matrix, there is no F-FOS-235 Requirement Number listed.

Originator's Recommendation

For EOS-AM1, it should be a simple matter to compute the total telemetry volume which must be transported and processed. In addition, it should be a straight forward computation to determine the rates and distribution of rates at which the transport and processing must occur. The only data processing load that was definitized at PDR was the 16 Kbps Housekeeping Telemetry. The Instrument Engineering Telemetry volumes were not mentioned (neither by instrument or in total), and the rates at which the Engineering telemetry is transfered in and out of the EOC was not mentioned. The FOS Driving Requirement on CM-16 is "12 times the real time rate", but the real time rates are unknown. It is recommended that the telemetry volumes and rates be computed, multiplied by 12, and added to the "FOS Driving Requirements".

GSFC Response by: **GSFC Response Date**

HAIS Response by: D. Herring **HAIS Schedule** 1/13/95
HAIS R. E. A. Miller **HAIS Response Date** 1/13/95

The real-time rates for the AM-1 mission are 16 kbps for real-time housekeeping telemetry and 1 kbps for real-time health and safety telemetry. The real-time rates pertinent to the FOS driving requirements referenced in CM-16 are 16 kbps.

The back-orbit telemetry, which is sent from the AM-1 Solid State Recorder, comes to the EOC from EDOS as rate-buffered data.

The instrument engineering data for the AM-1 mission is sent directly to the SDPS, not the EOC. The instrument engineering data is retrieved from the SDPS by the EOC, as requested by the users -- i.e., the rates at which they are received by the EOC are a function of the SDPS-FOS interface, not a real-time rate. In discussions with the instrument teams, their use of instrument engineering data will be infrequent. Thus, the instrument engineering data is not a driving requirement.

Reference to FOS-00235 is incorrect. It should be FOS-00615. This modification will be made in the update to the FOS Design Specification on January 31, 1995.

Status **Closed** **Date Closed** **2/1/95** **Sponsor** **Johns**

****** **Attachment if any** ******